

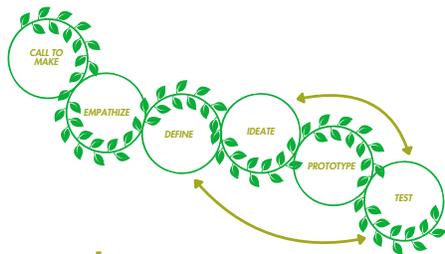
Harvesting Rainwater

What if all children had sustainable access to water? How could we harvest rainwater? Many of the things for which we use fresh water, such as watering the garden and plants, as well as supplying water for our pets could be done with harvested rainwater. This would help reduce our consumption of fresh water.

Setup

Set up your material in an open area, where there are no trees or roofs, so that the rain can be collected easily. Make sure it is on a flat surface.

Content



Brilliant Labs Framework

Canada hosts $\frac{1}{5}$ of the World's fresh water sources. Are we conscious of our chance? What does that mean for the rest of the world? How is water access in other countries?

Empathize

Knowing that there is so little fresh water available on this planet, and that so many people have no access to it, how can we reduce our water consumption at home?

Define

What do you need to consider while building your water collector system? What material could we use to collect rainwater that could be used to water our gardens, plants and hydrate our pets?

Ideate

How will you know that you are able to collect the most water possible? What will you plan to add for the overflow of water during a strong rainfall?

Prototype

Search up on the internet on ways that people have come up with to harvest rainwater? How does your system compare? How will you make it free of water leaks?

Test

Did your system work? Did the container leak water? What changes did you make with your new knowledge?



Skills

- Design

Materials

- Tarp
- Bucket
- Pipe
- Bark
- Container



Teachable Moments

Math

Using a ruler, measure how many cm of water there is in your container after each rainfall during a month and write the data in a table. How many litres does that represent in total? Compare the amount of rainwater that you collected and the rainfall amounts on Environment Canada's website. Why are there differences?

Science

What are the stages of the water cycle? How can we reduce our water consumption at home?

Visual Arts

Here are some awesome ideas :
<https://www.youtube.com/watch?v=ZvyfNkmsk5A>



Language Arts

Using a ruler, measure how many cm of water there is in your container after each rainfall during a month and write the data in a table. How many litres does that represent in total? Compare the amount of rainwater that you collected and the rainfall amounts on Environment Canada's website. Why are there differences?

Music

While listening to the rain coming down, can water create sounds, rhythms and even music? If so, what examples can you share?

Physical Education

Could you create a dance with the rhythm of raindrops falling?

Social Studies

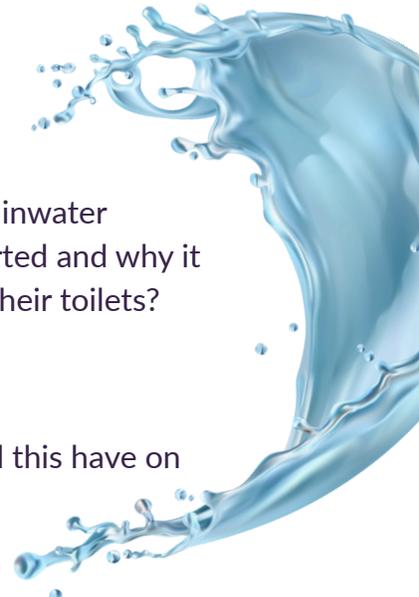
How was rainwater harvested in the 1800's and why? Did you know that rainwater harvesting goes back more than 3000 years ago? Can you find where it started and why it was done? Did you know that many establishments use rainwater to flush their toilets? Find examples in your province.

Health

What could be done to rainwater to be able to drink it? What impact would this have on the world's supply of fresh water if we could drink rainwater?

Take it Further

How could we provide water to all people on earth? Could we harvest water from air or dew? See Warka Tower: <https://warkawater.org/warkatower/>



Glossary

Upcycling

Upcycling, also known as creative reuse, is the process of transforming by-products, waste materials, useless, or unwanted products into new materials or products perceived to be of greater quality, such as artistic value or environmental value.

Resources

Clean sustainable water

<https://youtu.be/i6oG1aZMXsl?si=dxQvduFeBf0EpuPx>

Warka tower

<https://warkawater.org/warkatower/>

Water Art

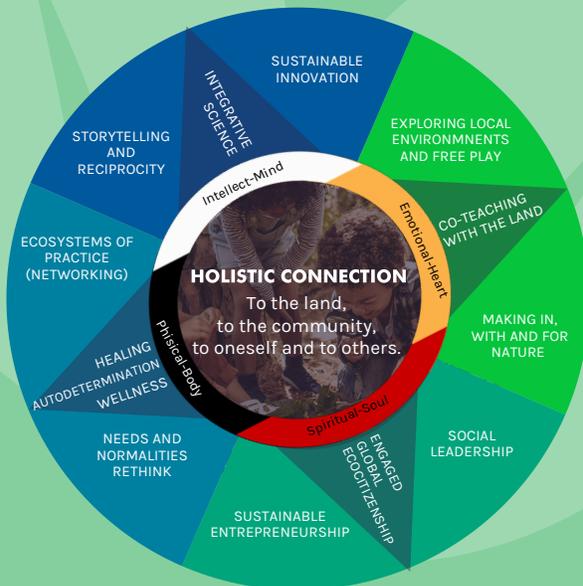
<https://www.youtube.com/watch?v=ZvyfNkmsk5A>



Learning continuum: Sustainable Innovation Through Holistic Connection

Based on three emerging pedagogies* and in recognition of indigenous knowledge, the natural maker educational continuum aims to support the learner through a holistic journey of connection to the earth, the community, oneself and others, in order to evolve globally towards a more open, humble, democratic and decolonized way of thinking, learning and living.

* wild pedagogies, conscious pedagogies and decolonization of education



#EarthDayforNature

#ActForEarth #ClimateAction



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